PUBLIC HEALTH BULLETIN

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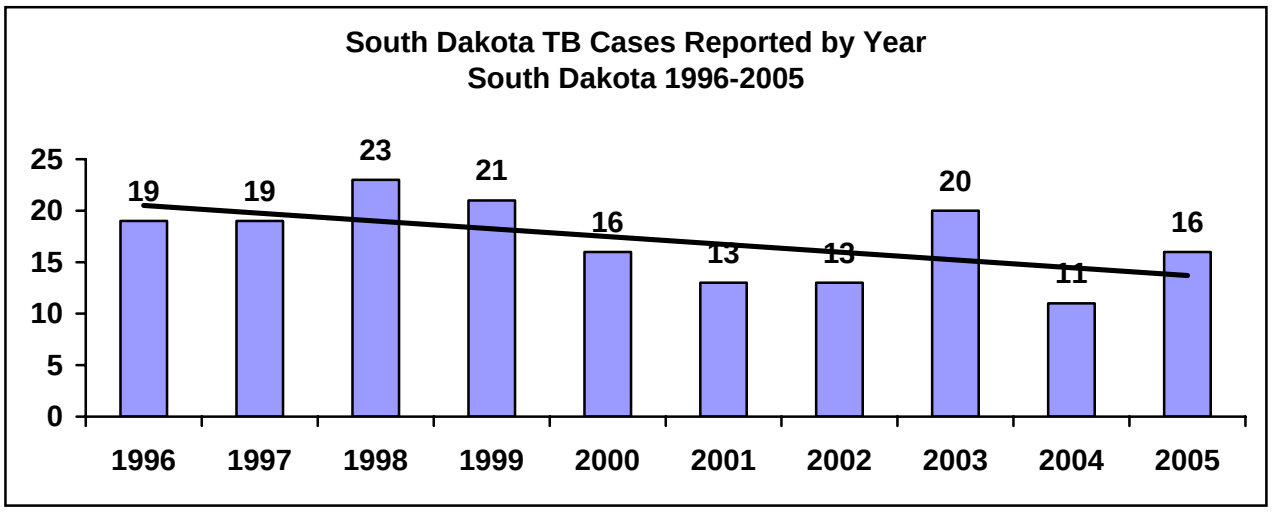
2005 South Dakota tuberculosis morbidity

by Kristin Rounds, Tuberculosis Control Coordinator
Office of Disease Prevention, South Dakota Department of Health

There were 16 cases of tuberculosis reported to the South Dakota Department of Health in 2005, which is an increase of 5 cases from 2004. Cases were widely distributed throughout the state with 10 counties reporting TB cases, however all but Minnehaha County reported only 1 TB case. During 2005, there was 1 Ethambutol resistant TB case and 1 INH and PZA resistant TB case. There were no HIV co-infected TB cases and no TB cases reported in correctional facilities. There was 1 TB case reported from a long-term care facility. During 2005, there were no TB cases reported in children aged 19 years or less of age.

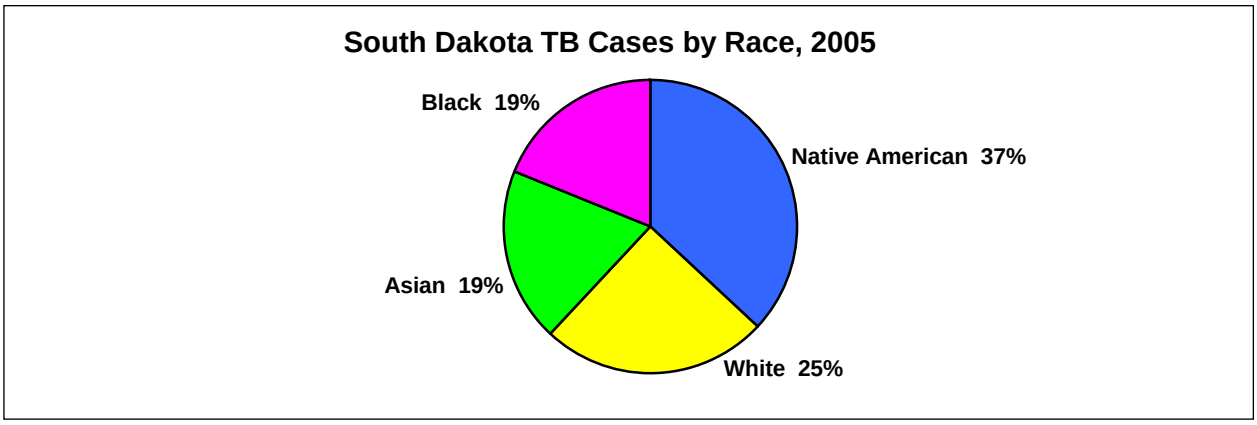


TB Cases Reported by Sex and Age, South Dakota 2005

AGE (years)	MALE	FEMALE	TOTAL	% OF CASES
0-4	0	0	**0**	0%
5-9	0	0	**0**	0%
10-14	0	0	**0**	0%
15-19	0	0	**0**	0%
20-29	1	2	**3**	19%
30-39	1	0	**1**	6%
40-49	3	2	**5**	32%
50-59	2	2	**4**	25%
60-69	0	0	**0**	0%
70-79	0	1	**1**	6%
80-89	0	1	**1**	6%
90+	0	1	**1**	6%
TOTAL	**7**	**9**	**16**	**100%**

TB Cases Reported by Sex and Race, South Dakota 2005

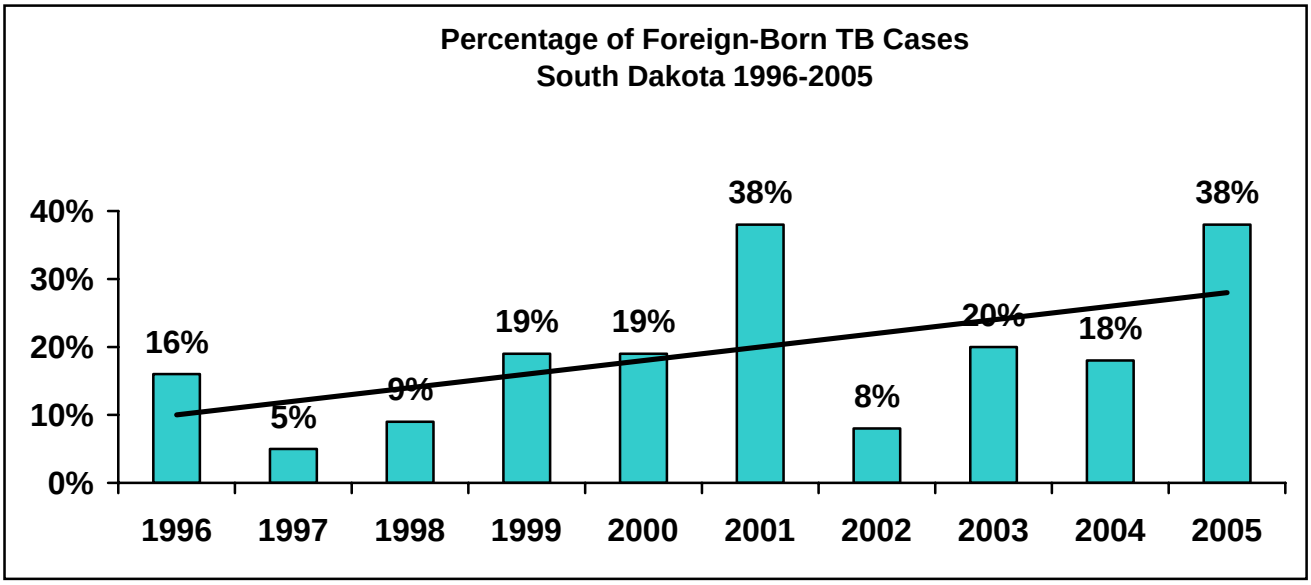
RACE	MALE	FEMALE	TOTAL	% OF CASES
Native American	3	3	6	37%
White	2	2	4	25%
Black	2	1	3	19%
Hispanic	0	0	0	0%
Asian	0	3	3	19%
TOTAL	**7**	**9**	**16**	**100%**



TB Morbidity Incidence Rates per 100,000 by Race and Year
South Dakota 2000-2005

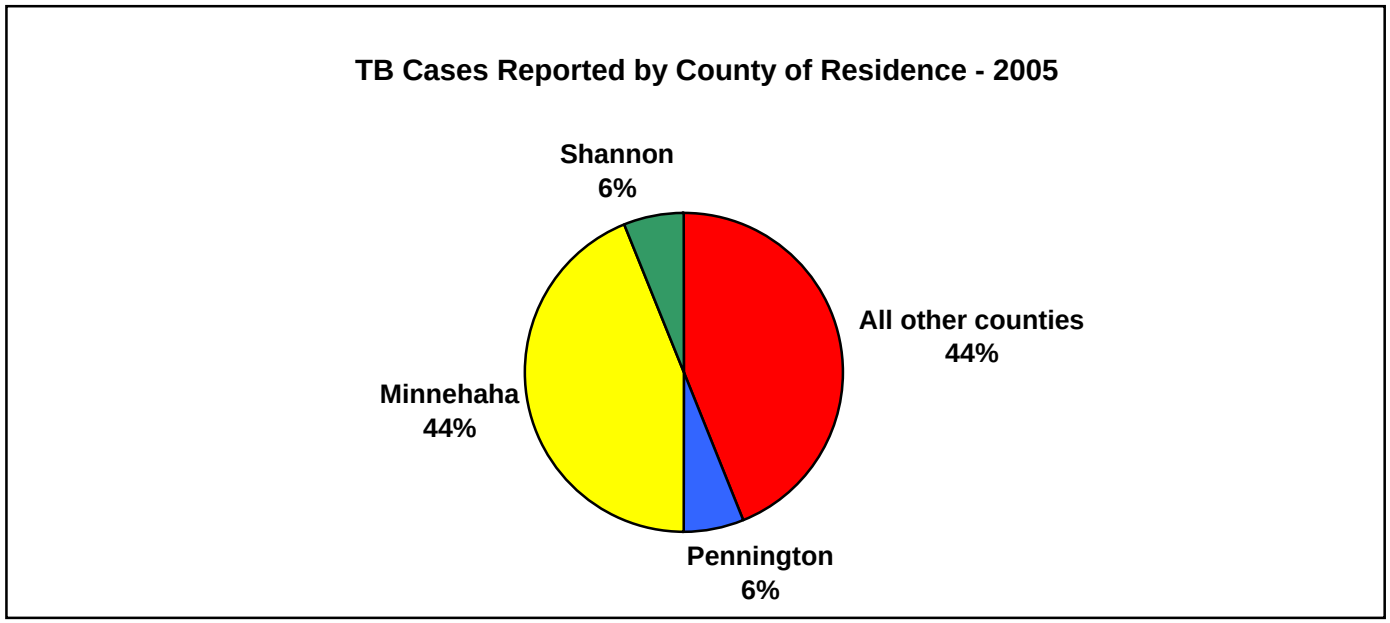
RACE	2000	2001	2002	2003	2004	2005
All Races	2.3	1.7	1.7	2.6	1.5	2.1
Native American	17.8	5.9	16.1	14.6	7.3	8.8
White	0.6	0.4	0.3	0.9	0.6	0.6
Black	Not available	48.4	0.0	0.0	0.0	48.4
Asian	Not available	17.4	0.0	69.4	0.0	52.1
All Other Races	37.9*	38.5	0.0	0.0	41.3	0.0

* Specific race data not available from the census for this year other than White & Native American



TB Cases Reported by County of Residence, South Dakota 2005

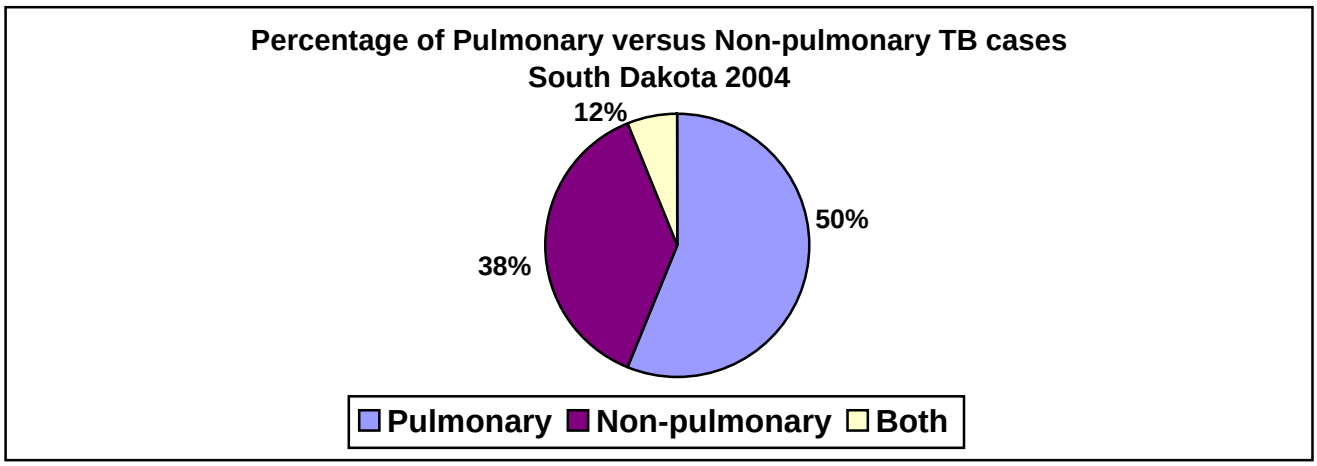
County	# of TB cases	County	# of TB cases
Bennett	1	Meade	1
Brule	1	Mellette	1
Corson	1	Minnehaha	7
Dewey	1	Pennington	1
Jackson	1	Shannon	1



Pulmonary and Non-Pulmonary TB Cases by Race, South Dakota 2005

Site of Disease	Native American	White	Black	Hispanic	Asian	TOTAL
Pulmonary	2	2	3	0	1	8
Non-pulmonary	2	2	0	0	2	6
Both	2	0	0	0	0	2
TOTAL	**6**	**4**	**3**	**0**	**3**	**16**

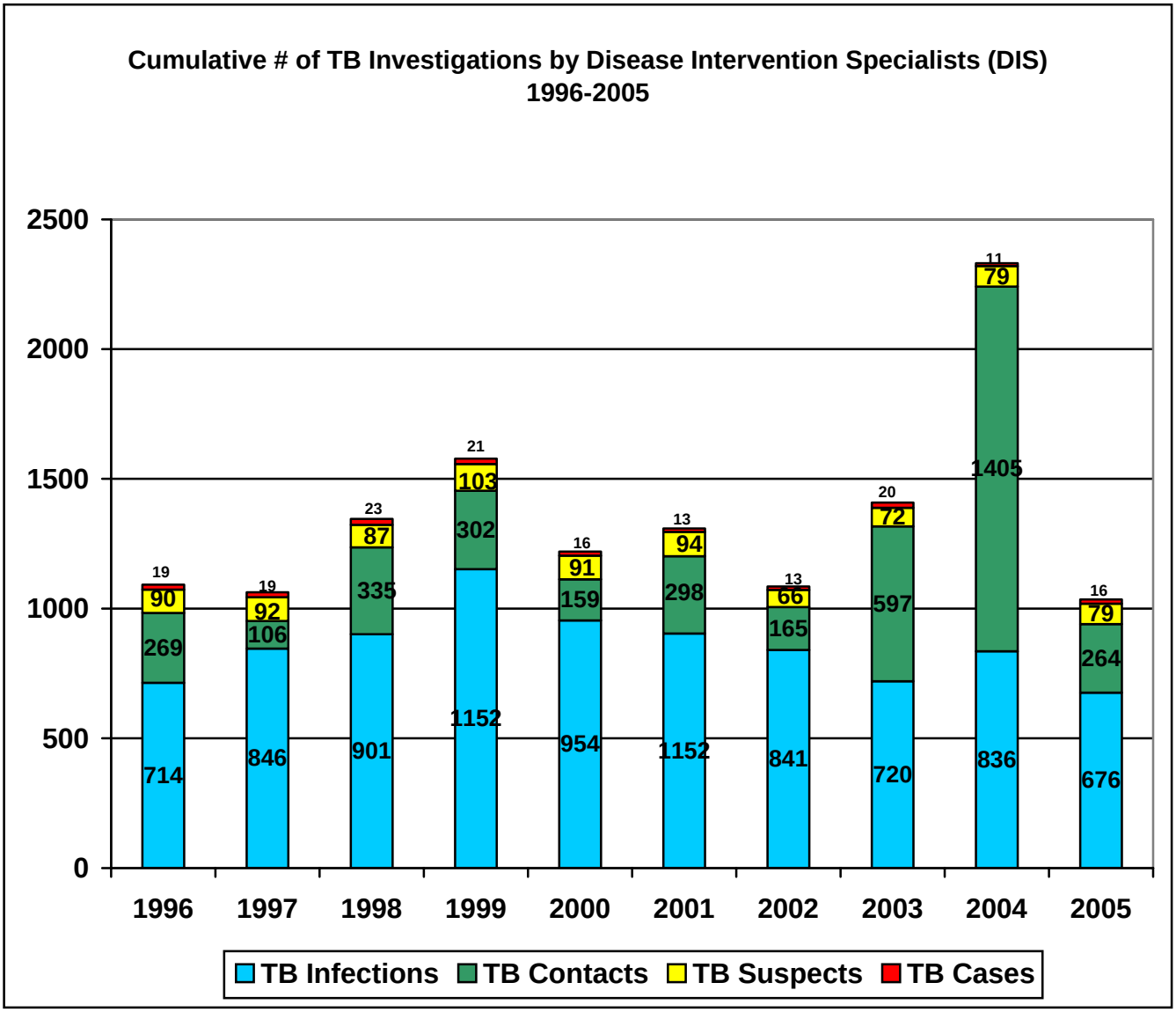
The non-pulmonary sites of disease included the following: meningeal, military, lymphatic, spinal, cyst on spine, bone, neck mass, pelvic mass



TB Mortality by Race and Year, South Dakota 2002-2005

RACE	2002		2003		2004		2005	
All races	4/13	31%	4/20	20%	1/11	9%	3/16	19%
Native American	4/11	36%	4/10	40%	1/5	20%	3/6	50%
White	0/2	0%	0/6	0%	0/4	0%	0/4	0%
Black	---	---	---	---	---	---	0/3	0%
Hispanic	---	---	---	---	0/2	0%	---	---
Asian	---	---	0/4	0%	---	---	0/3	0%

Cumulative # of TB Investigations by Disease Intervention Specialists (DIS)
1996-2005

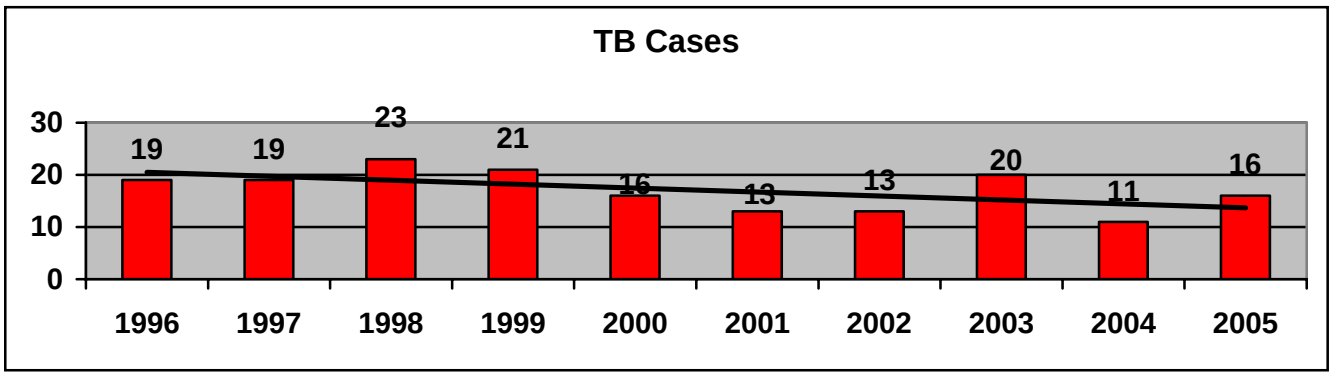


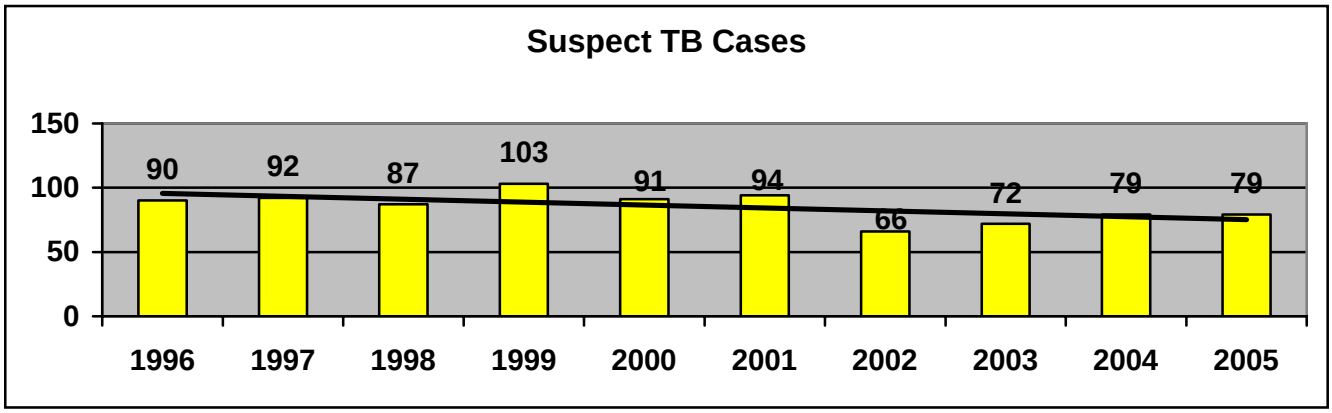
Patients Started on Treatment for Latent TB Infection
South Dakota 1996-2005

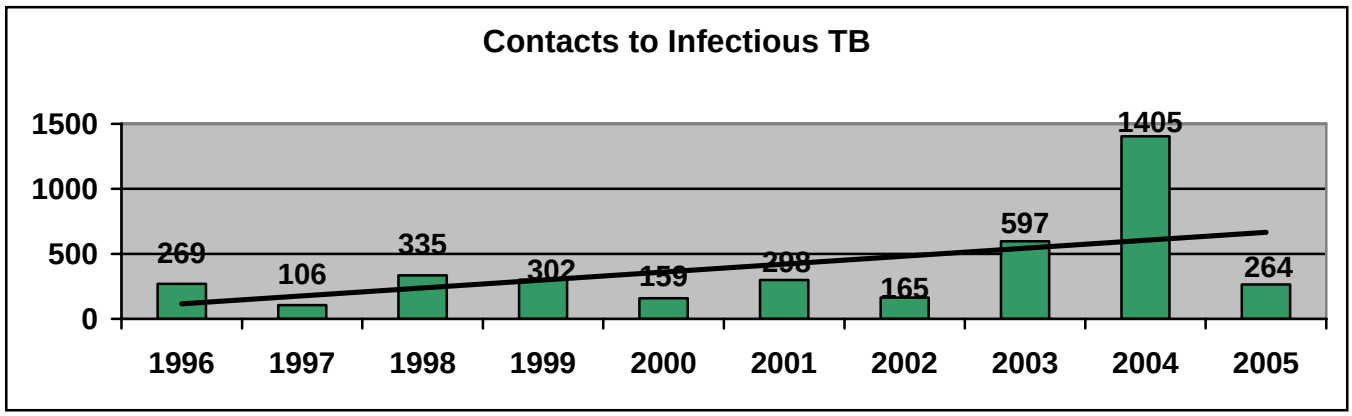
1996	1997	1998	1999	2000	2001	2002	2003	2004	2005*
636	629	628	764	583	661	574	469	555	488

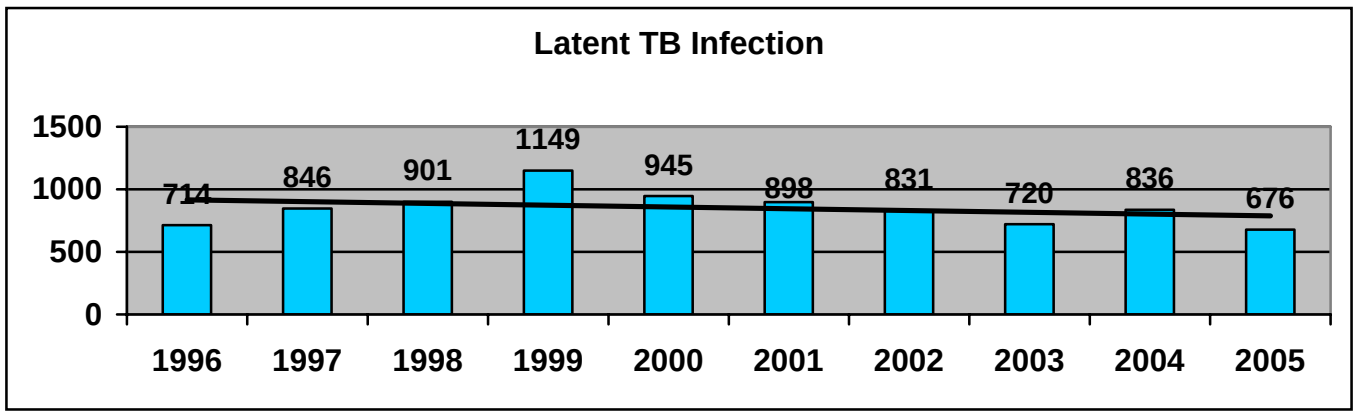
*2005 data is provisional

Comparison of TB Cases, TB Suspects, TB Contacts and Latent TB Infections Reported from 1996-2005

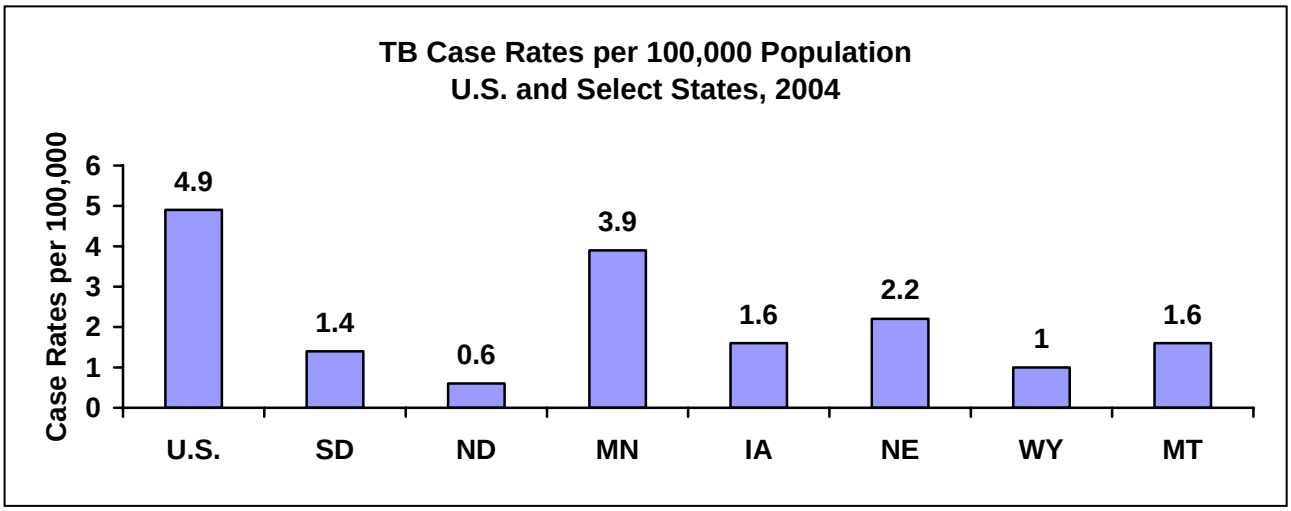


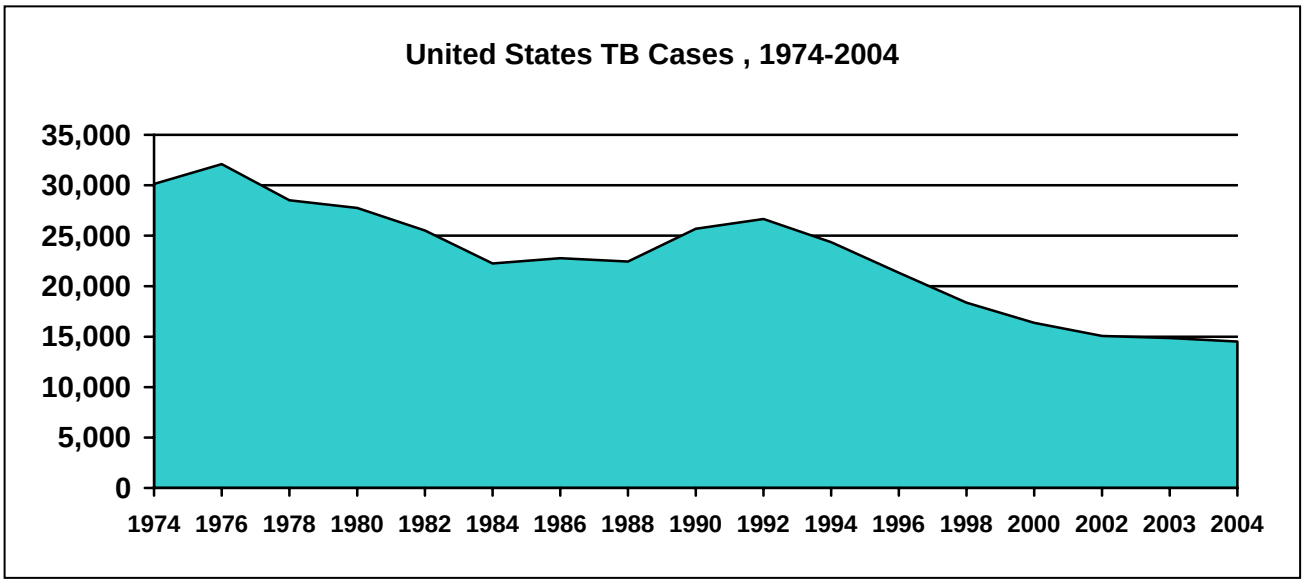






2004 US and Regional TB Statistical Information





TB Cases and Case Rates per 100,000, United States 1994-2005

YEAR	NUMBER OF TB CASES	TB CASE RATE	% CHANGE OF NUMBER	% CHANGE OF RATE
1994	24,361	9.4	-3.7%	-4.1%
1995	22,860	8.7	-6.2%	-7.4%
1996	21,337	8.0	-6.7%	-8.0%
1997	19,851	7.4	-7.0%	-7.5%
1998	18,361	6.8	-7.5%	-8.1%
1999	17,531	6.4	-4.5%	-5.9%
2000	16,377	5.8	-6.6%	-9.4%
2001	15,989	5.6	-2.4%	-3.4%
2002	15,078	5.2	-6.0%	-7.0%
2003	14,874	5.1	-1.3%	-1.9%
2004	14,517	4.9	-2.3%	-3.2%

South Dakota lags on prenatal care

by Nancy Shoup, RN, Perinatal Nurse Consultant
Office of Family Health, South Dakota Department of Health

South Dakota falls short in early prenatal care, a key indicator of infant health. In 2004, 77.5% of babies born in South Dakota were born to mothers who got prenatal care in the first trimester, well below the Healthy People 2010 objective of 90%. Even more concerning is that South Dakota's number has declined from 83.3% in 1999.

As part is its 2010 Initiative, the South Dakota Department of Health promotes early and regular prenatal care to improve birth outcomes. As part of that initiative, the department recently surveyed health care providers to get their perspectives on why women don't get prenatal care in the first trimester. The survey netted a response rate of 53.2% after two mailings. Family practitioners accounted for 63% of the respondents, 21% were physician assistants, nurse practitioners or certified nurse midwives, and 15% were obstetricians.

Overall, 88% of responding providers said they saw more than half of their patients in the first trimester of pregnancy. Only 43% met the Healthy People 2010 goal of 90% of their patients beginning prenatal care in the first trimester. According to survey results, 92% of respondents indicated they preferred to see their patients for their first prenatal visit in the first trimester.

The survey asked prenatal care providers what percentage of their patients met the American College of Obstetricians and Gynecologists (ACOG) recommendation of 13 prenatal visits for a full term pregnancy (adjusting for gestational age). Only 8% of the respondents felt that 100% of their patients met the recommendation while 27% felt that 90 – 99% accomplished the same. Of note, 48% of prenatal providers indicated that less than 90% of their patients met the ACOG recommendation.

Providers indicated the number one reason women didn't get prenatal care during their first trimester was they didn't see it as important. The reasons next on the list for providers were that women didn't know they were pregnant or they were waiting to qualify for Medicaid.

Other reasons cited by providers for women's failure to get early prenatal care were cultural norms, reluctance to let others know about the pregnancy, indecision about how to handle the pregnancy, lack of resources and significant distance from prenatal care providers.

In comparison, new moms surveyed in 2005 said they didn't get early prenatal care because their doctor didn't want to see them until they were 12 weeks pregnant or because they didn't know they were pregnant. According to the department's 2005 Perinatal Health Risk Assessment Report, 15.5% of new mothers responding to the survey did not get prenatal care as early as they wanted. Women also said they didn't seek care earlier because they didn't have insurance or they were waiting to qualify for Medicaid.

The surveys are designed to help identify and reduce barriers to women getting early prenatal care. They also point to the need for increased awareness about the importance of early and regular prenatal care in having a healthy pregnancy and a healthy baby.

In working to accomplish the goals of the 2010 Initiative, the Department of Health has outlined the following action steps:

- Identify barriers to accessing early and regular prenatal care and work with health care providers to address the barriers.
- Increase public awareness of the importance of early and regular prenatal care and the impact that life choices have on a healthy pregnancy and infant.
- Strengthen links between public programs serving pregnant mothers and primary care providers to improve birth outcomes.

Copies of the survey reports are available on the department's web site at www.state.sd.us/doh/Stats/ in the statistical publications section.

Newborn hearing screening in South Dakota

by Terry Disburg, RN, Newborn Hearing Screening Coordinator
Office of Family Health

Hearing loss occurs in one to three of 1,000 live births annually. If undetected, hearing loss can result in developmental delays. South Dakota is part of the national Early Hearing Detection and Intervention (EHDI) initiative, which supports the early identification of infants with hearing loss through screening, audiologic and medical evaluation and enrollment in early intervention with family support services when needed. Without EHDI programs, the average age of identification of children with some degree of hearing loss is 1½ to 3 years of age. Research indicates that this is already beyond the start of the crucial period for speech and language development. When a child's hearing loss is identified soon after birth, families and professionals can help make sure the child receives timely intervention services at an early age.

Health organizations including the Centers for Disease Control and Prevention, the American Academy of Pediatrics, the American Speech-Language-Hearing Association join in recommending:

- all newborns are screened for hearing loss before 1 month of age, preferably before hospital discharge;
- all infants who do not pass both their initial and re-screening will have a diagnostic audiologic and medical evaluation before 3 months of age;
- all infants identified with some degree of hearing loss begin receiving appropriate early intervention services before 6 months of age.

To help assure that infants born in South Dakota receiving hearing screening on a timely basis, the Dakota Department of Health's Office of Data, Statistics and Vital Records and its Office of Family Health created the Electronic Vital Records Screening System (EVRSS) in 2002. The EVRSS is a web-based system that electronically links each infant's birth certificate with the infant's metabolic screening results and hearing screening results. The linkage permits tracking and follow-up to assure necessary re-screenings, medical evaluations and audiological diagnostics are completed.

Providers participating in the EVRSS are only permitted to access the records of those infants needing further follow-up. Those records include only selected information that is pertinent in aiding both the medical physician and the diagnostic audiologist with their evaluations.

Percentage South Dakota Infants Screened Prior to One Month, 2003-2005			
	2003	2004	2005
Total # of births	11,503	11,805	11,954
screened **prior** to hospital discharge, before 1 month of age	84.08%	87.29%	90.51%
screened **after** hospital discharge, before 1 month of age	5.05%	5.26%	4.15%
Total screened before 1 month of age	89.13%	92.55%	94.66%

Since the EVRSS was created, there has been a steady increase in the percentage of infants screened prior to hospital discharge and before 1 month of age. In 2003 the total percentage was 84.08%. That total climbed to 90.51% by year end of 2005, which is a 6.43% increase. Factors contributing to this increase are the strong commitment the medical community to newborn hearing screening and the clean data that is being entered into and captured through the EVRSS. The result is that more South Dakota infants are being screened per the nationally recommended timeline, which decreases the risk of losing infants in need of follow-up.

Using the EVRSS, the Newborn Hearing Screening Program provides each of the state's 28 birthing facilities with a quarterly report indicating infants born at their site who were never screened as well as those who did not pass the initial screening and need a re-screening. The report permits the facility to check their records to determine whether a screening was conducted and can be entered into the EVRSS. If the records indicate no screening was done, the facility will make numerous attempts to contact the family so the infant can return for a hearing screening.

There are more than 170 medical clinics in South Dakota that have the potential of seeing an infant with a possible hearing loss. All have received materials and in some cases, training in data entry into EVRSS of the results of medical evaluations of infants who did not pass their first two screenings. As part of this process, the physician can then be contacted regarding the results of the medical evaluation or be notified if an evaluation is still needed.

There are a total of eight diagnostic audiologists in South Dakota located in Pierre, Rapid City, Aberdeen, Sioux Falls and Vermillion who have the ability and proper equipment to do diagnostic testing. They enter their diagnostic results entered into the EVRSS, documenting the testing results along with the intervention and any other recommendations or referrals that would be beneficial for the infant and family. During 2005, the Newborn Hearing Screening Program identified eight children with some degree of hearing loss.

Having all screening results centrally located and individually identified enables the Newborn Hearing Screening Program to do follow-up for each infant born in the state of South Dakota. It also allows the program to recognize areas of concern where improvements need to be made, such as monitoring why screening is not being done prior to hospital discharge.

Reasons Why Newborn Hearing Screening Not Done Prior to Hospital Discharge South Dakota, 2003-2205												
				After Discharge								
	Not Done Prior to Hospital Discharge			Screened by 1 Month			Screened After 1 Month			Not Screened		
Reasons screening not done	2003	2004	2005	2003	2004	2005	2003	2004	2005	2003	2004	2005
Deceased	30	49	38	0	0	0	0	0	0	30	49	38
Discharged	223	191	105	31	42	34	7	6	8	185	143	63
Hearing equipment broken	157	49	78	25	13	25	3	1	11	129	35	42
Home birth	31	20	15	0	1	1	0	0	0	31	19	14
Infant in ICU	395	109	108	26	17	29	9	10	3	360	82	76
No hearing screening equipment	12	10	6	4	2	0	0	2	0	8	6	6
Refused	31	32	19	0	0	0	0	1	0	31	31	19
To be screened in PCP office	771	813	568	492	526	387	38	49	23	241	238	158
Transferred	90	99	89	3	20	18	3	8	3	84	71	68
Totals	**1740**	**1372**	**1026**	**581**	**621**	**494**	**60**	**77**	**48**	**1099**	**674**	**484**

Many measures have been taken by the Newborn Hearing Screening Program to decrease the reasons why screenings are not being done. For example, the program developed and initiated a statewide media campaign to educate parents and promote the importance of hearing screening, re-screenings and potential for late onset hearing loss. In addition, information about newborn hearing screening is included in the Bright Start boxes mailed to parents of every infant born in South Dakota. Educational materials about newborn screening have also been distributed to health care facilities across the state and informational meetings have been held with various health care provider groups. .

To address equipment issues, the program has made additional equipment available to facilities in areas of the state identified with large numbers of infants needing either their initial screening or a re-screening. An additional diagnostic audiologist has made evaluations more accessible for rural families whose infants need testing.

To assure the accuracy and completeness of screening results entered into the EVRSS system, numerous training sessions have been held on data entry with the system. The trainings are designed to ensure cleaner data for tracking and follow-up of infants needing screenings and audiological and medical evaluations.

While South Dakota's voluntary screening program has achieved a 90% rate prior to one month of age, 37 other states, plus the District of Columbia and Puerto Rico, have elected to mandate hearing screenings. The mandates vary from state to state, with some specifying a the age by which screening must be done, the particular screening equipment that must be used, and a timeframe for submitting data to the state.

Fetal Alcohol Syndrome (FAS) reporting in South Dakota

In 2002, South Dakota law began requiring suspected and diagnosed cases of Fetal Alcohol Syndrome (FAS) to be reported to the Department of Health. (SDCL 34-24-27, ARSD 44:65). Under the provisions of the law, the Department of Health is required to provide for the collection and processing of mandatory reports of identifiable and suspected cases of Fetal Alcohol Syndrome from all physicians, hospitals and other institutions.

Since its inception in 2002, 79 reports of FAS have been submitted to the Department of Health. Of those 79 reports, 52 were of diagnosed cases of FAS and 27 were suspected cases of FAS.

Those 52 diagnosed cases of FAS include:

- 11 FAS with confirmed maternal alcohol exposure
- 1 confirmed FAS Phenotype without maternal alcohol exposure
- 21 partial FAS with confirmed maternal alcohol exposure
- 19 diagnosed as ARND (Alcohol Related Neurodevelopment Disorder)

As the data base of FAS cases grows, the department will be able to provide more detailed data and use the data to calculate prevalence rates of FAS in South Dakota.

Reporting forms for FAS can be found on the Department of Health's web site at http://www.state.sd.us/doh/Disease/report.htm#FAS. Questions on FAS reporting can be addressed to Kathi Mueller at (605) 773-3361.

South Dakota Department of Health - Infectious Disease Surveillance

Selected Morbidity Report, 1 January – 31 December 2005 (provisional)

	Disease	2005 year-to-date	5-year median	Percent change
Vaccine-Preventable Diseases	Diphtheria	0	0	na
	Tetanus	0	0	na
	Pertussis	165	8	+1950%
	Poliomyelitis	0	0	na
	Measles	0	0	na
	Mumps	0	0	na
	Rubella	0	0	na
	Haemophilus influenza type b	0	1	-100%
Sexually Transmitted Infections and Blood-borne Diseases	HIV infection	33	22	+50%
	Hepatitis B	4	2	+100%
	Chlamydia	2703	2215	+22%
	Gonorrhea	351	277	+27%
	Herpes, genital or neonatal	342	322	+6%
	Syphilis, primary & secondary	2	0	na
Tuberculosis	Tuberculosis	16	13	+23%
Invasive Bacterial Diseases	*Neisseria meningitidis*	4	4	0%
	Invasive Group A *Streptococcus*	24	16	+50%
	Invasive Group B *Streptococcus*	26	16	+63%
Enteric Diseases	*E. coli* O157:H7	29	41	-29%
	Campylobacteriosis	243	186	+31%
	Salmonellosis	159	131	+21%
	Shigellosis	133	17	+682%
	Giardiasis	117	90	+30%
	Cryptosporidiosis	31	42	-26%
	Hepatitis A	1	3	-67%
Vector-borne Diseases	Animal Rabies	65	96	-30%
	Tularemia	8	5	+60%
	Rocky Mountain Spotted Fever	5	2	+150%
	Hantavirus Pulmonary Syndrome	2	1	+100%
	Lyme disease	2	1	+100%
	West Nile Virus disease	228	51	+347
Other Diseases	*Streptococcus pneumoniae*, drug-resistant	3	5	-40%
	Legionnaires' disease	19	3	+533%
	Additionally, the following diseases were reported: Bacterial Meningitis, non-meningococcal (17); Botulism, wound (1); Chicken pox (135); E. coli, shigatoxin-producing, non-0157:H7 (4); Hemolytic Uremic Syndrome (3); MRSA, invasive (47); *Staphylococcal* Toxic Shock Syndrome (1); *Streptococcal* Toxic Shock Syndrome (1); Q fever (1); Yersiniosis (1).			

Communicable diseases are obligatorily reportable by physicians, hospitals, laboratories, and institutions.
The **Reportable Diseases List** is found at www.state.sd.us/doh/Disease/report.htm or upon request.
Diseases are reportable by telephone, mail, fax, website or courier.
Telephones: 24 hour answering device 1-800-592-1804; for a live person at any time call 1-800-592-1861; after hours emergency 605-280-4810. **Fax** 605-773-5509.
Mail in a sealed envelope addressed to the DOH, Office of Disease Prevention, 615 E. 4th Street, Pierre, SD 57501, marked "Confidential Medical Report". **Secure website:** www.state.sd.us/doh/diseasereport.htm.

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